

AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS

1. (Currently Amended) A physical computer-readable medium having an executable data structure for managing reproduction duration of still images recorded thereon by a reproducing apparatus, comprising:

a data area storing a first stream file including presentation data being reproduced as one of a browsable slideshow which presents the still images for infinite duration and a time-based slideshow which presents the still images for finite duration, the presentation data being multiplexed into a transport stream, the presentation data and being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data, the data area further storing a second stream file including audio data for reproduction with the still images asynchronously;

a navigation area storing at least one playlist file and at least one first and second clip information files separately within the navigation area, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating at least one of the still picture units an in-point and out-point of the first stream file for reproducing the presentation data to reproduce and providing first and second duration information for display of the still picture in the still picture unit, the sub-playitem indicating an in-point and out-point of the second stream file for reproducing the audio data, and the first clip information file including at least one entry point map, the entry point map including at least one entry point providing a link between a presentation time and a unit of the first stream file at least an address of a still picture in the transport stream, the second clip information file including at least one entry point map, the entry point map including at least one entry point providing a link between a presentation time and a unit of the second stream file,

wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

the second duration information indicates a length of time to display the still picture when the first duration information indicates to display the still picture for a finite period of time.

2. (Currently Amended) The physical computer-readable medium of claim 1, wherein the related data in at least one still picture unit includes graphics data and/or subtitle data.

3. (Canceled)

4. (Currently Amended) The physical computer-readable medium of claim 1, wherein the presentation data is multiplexed into the transport stream on a still picture unit by still picture unit basis.

5. (Canceled)

6. (Currently Amended) The physical computer-readable medium of claim 1, wherein the entry point map includes an entry point associated with each still picture unit.

7. (Currently Amended) The physical computer-readable medium of claim 6, wherein at least a number of the entry points each include a presentation time stamp associated with the still picture in the associated still picture unit such that, when the first duration information indicates to display a still picture for a finite duration, the finite duration is determinable at least in part from the presentation time stamp in the entry point associated with the still picture and the presentation time stamp in the next entry point.

8. (Currently Amended) The physical computer-readable medium of claim 1, wherein each elementary stream of the still picture and associated related data is aligned within the still picture unit.

9. (Currently Amended) The physical computer-readable medium of claim 8, wherein each elementary stream is a packetized elementary stream.

10. (Currently Amended) The physical computer-readable medium of claim 9, wherein each still picture unit includes one packet from each packetized elementary stream.

11. (Currently Amended) The physical computer-readable medium of claim 10, wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

a number of the packets of the packetized elementary stream of still picture data each include a presentation time stamp such that, when the first duration information indicates display of the still picture for a finite duration, the finite duration is determinable using the presentation time stamp in the packet of the still picture and a presentation time stamp in a next packet.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Currently Amended) The physical computer-readable medium of claim 1, wherein each still picture unit includes only one still picture.

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Currently Amended) A method of recording a data structure for managing reproduction duration of at least one still image on a recording medium, comprising:

recording a first stream file including presentation data being reproduced as one of a browsable slideshow which presents the still images for infinite duration and a time-based slideshow which presents the still images for finite duration, the presentation data being multiplexed into a transport stream in a data area of the recording medium, ~~the presentation data and~~ being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data;

recording a second stream file including audio data for reproduction with the still images asynchronously; and

recording at least one playlist file and at least one first and second clip information files separately on the recording medium, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating at least one of the still picture units to reproduce an in-point and out-point of the first stream file for reproducing the presentation data and providing first and second duration information for display of the still picture in the still picture unit, the sub-playitem indicating an in-point and out-point of the second stream file for reproducing the audio data, and the first clip information file includes including at least one entry point map, the entry point map including at least one entry point providing a link between a presentation time and a unit of the first stream file at least an address of a still picture in the transport stream, the second clip information file including at least one entry point map, the entry point map including at least one entry point providing a link between a presentation time and a unit of the second stream file,

wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

the second duration information indicates a length of time to display the still picture when the first duration information indicates to display the still picture for a finite period of time.

34. (Currently Amended) A method of reproducing a data structure for managing reproduction duration of at least one still image recorded on a recording medium, comprising:

reproducing a first stream file including presentation data being reproduced as one of a browsable slideshow which presents the still images for infinite duration and a time-based slideshow which present still images for a finite duration, the presentation data multiplexed into a transport stream from a data area of the recording medium, the presentation data and being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data;

reproducing a second stream file including audio data for reproduction with the still images asynchronously; and

reproducing at least one playlist file and at least one first and second clip information files from the recording medium, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating at least one of the still picture units to reproduce an in-point and out-point of the first stream file for reproducing the presentation data and providing first and

second duration information for display of the still picture in the still picture unit, the sub-playitem indicating an in-point and out-point of the second stream file for reproducing the audio data, and the first clip information file includes including at least one entry point map, the entry point map including at least one entry point providing a link between a presentation time and a unite of the first stream file, at least an address of a still picture in the transport stream the second clip information file including at least one entry point map, the entry point map including at least one entry point providing a link between a presentation time and a unite of the second stream file ~~wherein the playlist and clip information files are stored separately on the computer readable medium,~~

wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

the second duration information indicates a length of time to display the still picture when the first duration information indicates to display the still picture for a finite period of time.

35. (Currently Amended) An apparatus for recording a data structure for managing reproduction duration of at least one still image on a recording medium, comprising:

a pick up configured to record data on the recording medium;
a controller configured to control the pick up to record a first stream file including presentation data being reproduced as a browsable slideshow which presents the still images for one of an infinite duration and a time-based slideshow which presents the still images for finite duration, the presentation data being multiplexed into a transport stream in a data area of the recording medium, the presentation data and being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data, wherein the controller is further configured to control the pick up to record a second stream file including audio data for reproduction with the still images asynchronously; and

the controller configured to control the pick up to record at least one playlist file and at least one first and second clip information files separately on from the recording medium, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating at least one of the still picture units to reproduce an in-point and out-point of the first stream file for reproducing the presentation data and providing first and second duration information for display

of the still picture in the still picture unit, the sub-playitem indicating an in-point and out-point of the second stream file for reproducing the audio data, and the first clip information file including at least one entry point map, the entry point map including at least one entry point providing at least an address of a still picture in the transport stream, a link between a presentation time and a unit of the first stream file, the second clip information file including at least one entry point map, the entry point map including at least one entry point providing a link between a presentation time and a unit of the second stream file,

wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

the second duration information indicates a length of time to display the still picture when the first duration information indicates to display the still picture for a finite period of time.

36. (Currently Amended) An apparatus for reproducing a data structure for managing reproduction duration of at least one still image recorded on a recording medium, comprising:

a pick up configured to reproduce data recorded on the recording medium;

a controller configured to control the pick up to reproduce a first stream file including presentation data being reproduced as one of a browsable slide-show which presents the still images for infinite duration and a time-based slideshow which presents the still images for finite duration, the presentation data being multiplexed into a transport stream from a data area of the recording medium, the presentation data and being divided into a number of still picture units, each still picture unit including at least one still picture and associated related data, the related data not including audio data, the controller further configured to reproduce a second stream file including audio data for reproduction with the still images asynchronously; and

the controller configured to control the pick up to reproduce at least one playlist file and at least one first and second clip information files from the recording medium, the playlist file including at least one playitem and at least one sub-playitem, the playitem indicating at least one of the still picture units to reproduce an in-point and out-point of the first stream file for reproducing the presentation data and providing first and second duration information for display of the still picture in the still picture unit, the sub-playitem indicating an in-point and out-point of the second stream file for reproducing the audio data, and the first clip information file includes including at least one entry point map, the entry point map including at least one entry point

providing at least an address of a still picture in the transport stream, a link between a presentation time and a unit of the first stream file, the second clip information file including at least one entry point map, the entry point map including at least one entry point providing a link between a presentation time and a unit of the second stream file, wherein the playlist and clip information files are stored separately on the computer readable medium,

wherein the first duration information indicates whether to display the still picture for one of a finite and an infinite period of time; and

the second duration information indicates a length of time to display the still picture when the first duration information indicates to display the still picture for a finite period of time.

37. (Previously Presented) The method of claim 33, wherein the entry point map includes an entry point associated with each still picture unit; and

at least a number of the entry points each include a presentation time stamp associated with the still picture in the associated still picture unit such that, when the first duration information indicates to display a still picture for a finite duration, the finite duration is determinable at least in part from the presentation time stamp in the entry point associated with the still picture and the presentation time stamp in the next entry point.

38. (Previously Presented) The method of claim 33, wherein each elementary stream is a packetized elementary stream;

and

a number of the packets of the packetized elementary stream of still picture data each include a presentation time stamp such that, when the first duration information indicates display of the still picture for a finite duration, the finite duration is determinable using the presentation time stamp in the packet of the still picture and a presentation time stamp in a next packet.

39. (Canceled)

40. (Previously Presented) The method of claim 33, wherein each still picture unit includes only one still picture.

41. (Previously Presented) The method of claim 34, wherein the entry point map includes an entry point associated with each still picture unit;

and

at least a number of the entry points each include a presentation time stamp associated with the still picture in the associated still picture unit such that, when the first duration information indicates to display a still picture for a finite duration, the finite duration is determinable at least in part from the presentation time stamp in the entry point associated with the still picture and the presentation time stamp in the next entry point.

42. (Previously Presented) The method of claim 34, wherein each elementary stream is a packetized elementary stream;

and

a number of the packets of the packetized elementary stream of still picture data each include a presentation time stamp such that, when the first duration information indicates display of the still picture for a finite duration, the finite duration is determinable using the presentation time stamp in the packet of the still picture and a presentation time stamp in a next packet.

43. (Canceled)

44. (Previously Presented) The method of claim 34, wherein each still picture unit includes only one still picture.

45. (Previously Presented) The apparatus of claim 35, wherein the entry point map includes an entry point associated with each still picture unit.

46. (Previously Presented) The apparatus of claim 45, wherein

at least a number of the entry points each include a presentation time stamp associated with the still picture in the associated still picture unit such that, when the first duration information indicates to display a still picture for a finite duration, the finite duration is determinable at least in part from the presentation time stamp in the entry point associated with the still picture and the presentation time stamp in the next entry point.

47. (Previously Presented) The apparatus of claim 35, wherein each elementary stream is a packetized elementary stream; and a number of the packets of the packetized elementary stream of still picture data each include a presentation time stamp such that, when the first duration information indicates display of the still picture for a finite duration, the finite duration is determinable using the presentation time stamp in the packet of the still picture and a presentation time stamp in a next packet.

48. (Canceled)

49. (Previously Presented) The apparatus of claim 35, wherein each still picture unit includes only one still picture.

50. (Previously Presented) The apparatus of claim 36, wherein the entry point map includes an entry point associated with each still picture unit.

51. (Previously Presented) The apparatus of claim 50, wherein at least a number of the entry points each include a presentation time stamp associated with the still picture in the associated still picture unit such that, when the first duration information indicates to display a still picture for a finite duration, the finite duration is determinable at least in part from the presentation time stamp in the entry point associated with the still picture and the presentation time stamp in the next entry point.

52. (Previously Presented) The apparatus of claim 36, wherein each elementary stream is a packetized elementary stream; and a number of the packets of the packetized elementary stream of still picture data each include a presentation time stamp such that, when the first duration information indicates display of the still picture for a finite duration, the finite duration is determinable using the presentation time stamp in the packet of the still picture and a presentation time stamp in a next packet.

53. (Canceled)

54. (Previously Presented) The apparatus of claim 36, wherein each still picture unit includes only one still picture.